



Air and Space Basic Course



Learning USAF Doctrine Through Simulation

“Air & Space Warriors for the 21st Century”

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OVERVIEW



Overview

Air and Space Basic Course Background

Expeditionary Airbase Simulation

Theater Airpower Visualization

Summary



Air & Space Basic Course



- Corona identified need to overcome “Tribes” (career-fields) mentality for an “Airman” identity
- Basic course for newly-commissioned 2nd Lieutenants: 5-6 weeks at Maxwell (1998)
- Common officer (USAFA, OTS, ROTC commissioning sources) PME: leadership, teamwork, problemsolving, and physical conditioning
- Heavy focus on airpower basic warfighting doctrine at application level (wargaming)



Squadron Officer College



- In 1999, Squadron Officer School (SOS) for Captains merged with Air and Space Basic Course (ASBC) for 2nd Lieutenants
- Squadron Officer College (SOC) provides administrative, curriculum development, and mission support to both schools
- Schools each have Commandants who focus on classroom instruction



Air and Space Basic Course



Expeditionary Airbase Simulation (EAS)

“Air & Space Warriors for the 21st Century”



Expeditionary Airbase Simulation



- Expeditionary airbase “citybuilder” simulation concept in SOC in 2002
- SOC submitted ETTAP proposal to AETC in Fall 1996; approved December 2006
- BreakAway Ltd and KMS Inc went on contract in Jan 2007 for 10 month project
- Final deliverable sim & doc in Nov 2007
- EAS will debut in ASBC classrooms during Class 08D (May-Jun 07)



EAS Concepts



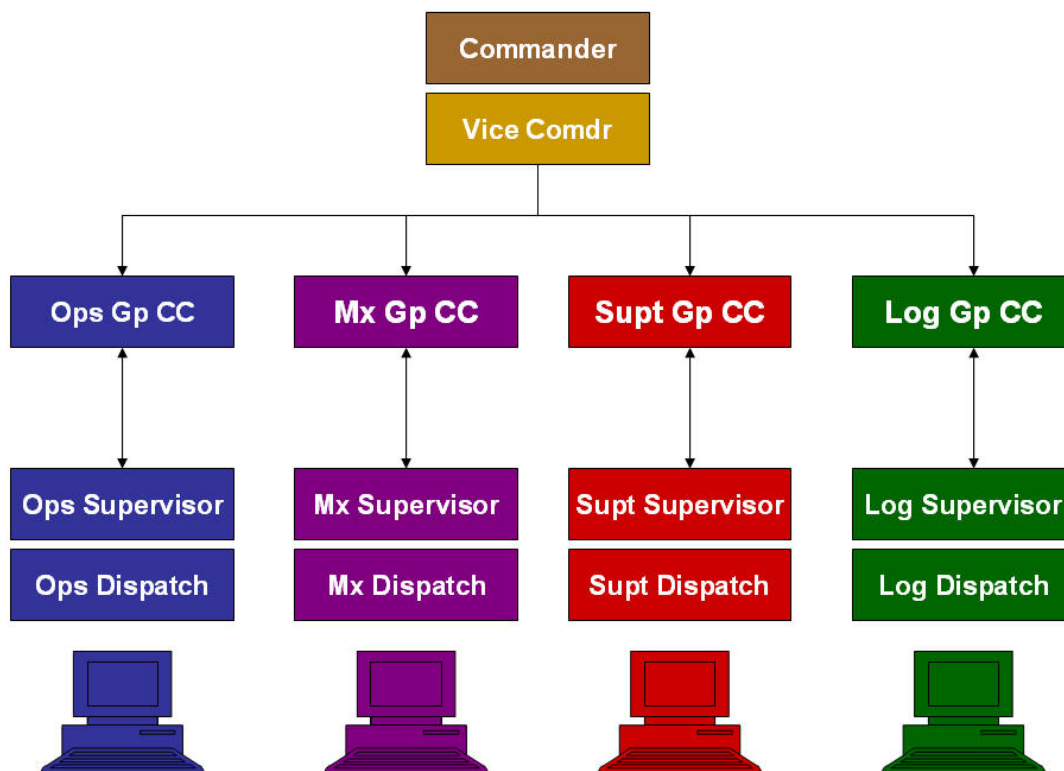
- First USAF simulation to focus on airbase or installation level (vs flight sim or AOC)
- Expeditionary airbase level helps show how each career field contributes to mission
- GWOT expeditionary airbases: 16 for OEF, 16 for OIF
- Students have better idea where they fit in and what their peers do
- Understand “moving parts” at airbase as groups and squadrons team together



EAX STRUCTURE



Divide the flight into 5 teams: a base command section (2) and four functional groups of 3 students each in the following roles:

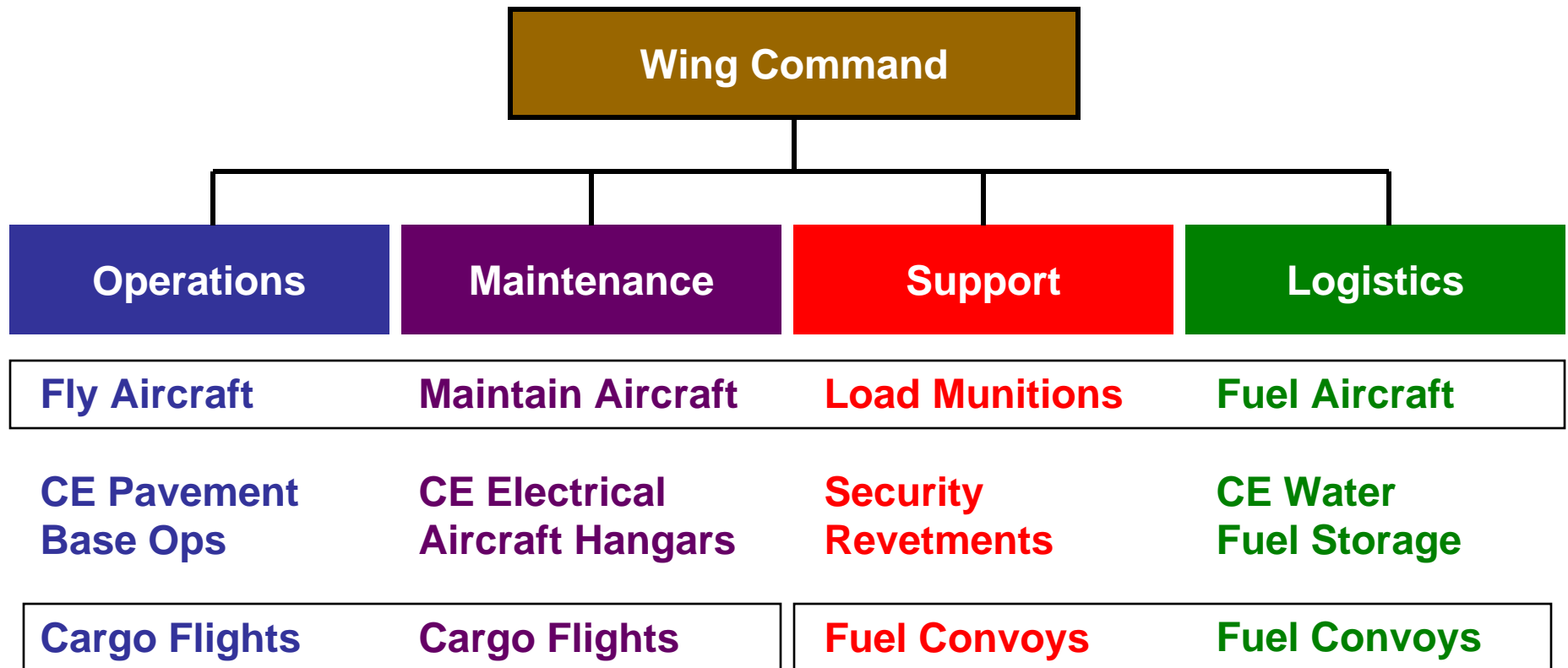




GROUP ROLES



Org structure is arbitrary and not representative; used to distribute workload and keep each student group engaged throughout





BASE CONFIGURATION



EAS

File Info Network Help Personnel 38 Const Supplies 100 Gasoline 2000 Water 3957 Food 2486 Power off Jet Fuel 0 Munitions 0 Spare Parts 0

Day 1 00:42

Task Summary

☒ Current Phase: Runway Prep
☐ Next Phase: Open Air Base

Tasks
Unloading Area Paint (Unloading Area Upgrade)
Airfield Paint (Runway Upgrade)
Airfield Lights (Runway Upgrade)
Arresting Barrier (Runway Upgrade)
Mobile Control Tower (Runway Upgrade)

Day 1 00:00 Medium enemy threat in area

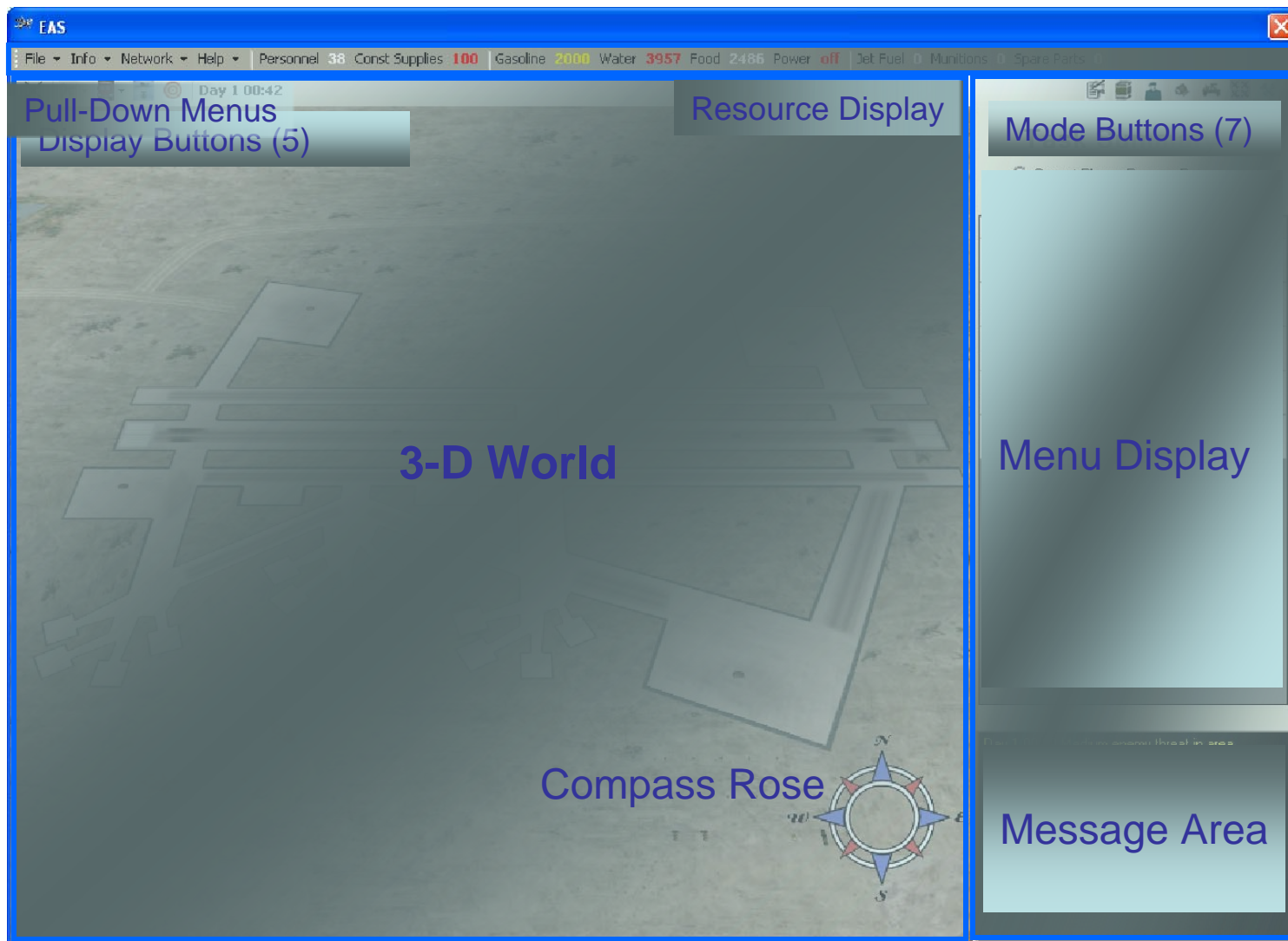
The map shows a base layout with the following labeled areas:

- Fuels Area
- Alert Area
- Runway
- Vehicle Parking
- Aircraft Parking
- Unloading Area

A compass rose is located in the bottom right corner of the map area.



EAS INTERFACE





EAS Objectives



- Flight is evaluated as an airbase team
- Objectives for expeditionary airbase exercise developed from AFDD1-1

Organizational Leadership Competencies

- Supervise Airmen
- Accomplish Mission: Build up airbase and generate combat sorties
- Manage Resources



Health/Welfare of Airmen is one of three evaluation areas for air base command. Morale is measured daily and averaged.

Sick, injured, or fatalities (terrorist attack) all count significantly against Health/Welfare score.

Medical, hygiene, and recreation facilities help improve health & welfare levels.



SUPERVISE AIRMEN



An expeditionary airbase is built up to support approximately 1100 Airmen for each fighter squadron-equivalent flying unit

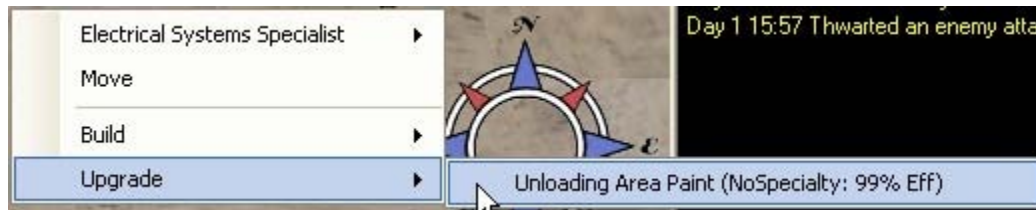
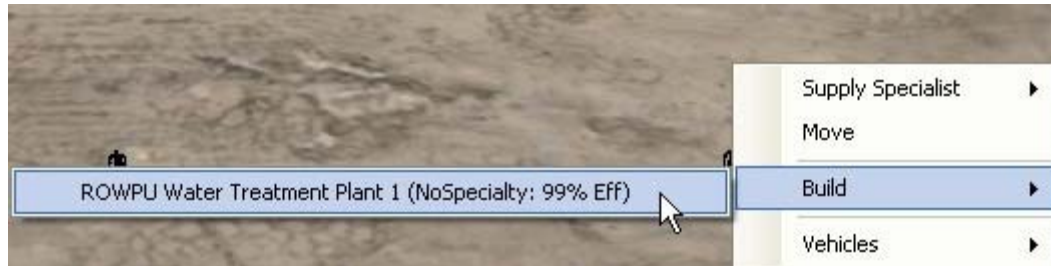
The lives and well-being of these Airmen are the responsibility of the airbase command staff

Simulated Airmen should be treated like real people -- care for basic needs, supervise work, and they will accomplish the mission


The EAX exercise: familiarize students with expeditionary airbases and practice LEADERSHIP and TEAMWORK



SUPERVISE AIRMEN



Airmen can build base facilities, upgrade structures, or drive vehicles



Type	Status	Stamina	Morale
	Ready	100%	81%
	Resting	93%	81%
	Resting	70%	81%
	Resting	86%	81%
	Ready	71%	81%
	Ready	100%	81%
	Resting	88%	81%
	At Work	85%	81%
	Ready	96%	81%
	Ready	100%	100%
	Ready	100%	100%
	Sick/Injured	65%	91%



SUPERVISE AIRMEN

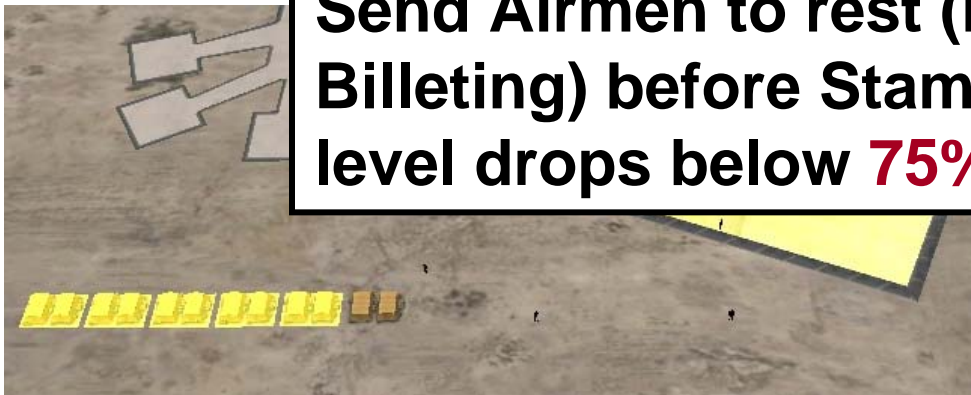


Keep an eye on Stamina levels before Airmen get sick or injured (and not available for duty!)

Personnel Name:
Security Forces Personnel 1
Specialty: Security
Status: Sick/Injured
Morale:
Stamina:



Send Airmen to rest (need Billeting) before Stamina level drops below **75%**



Personnel Summary

Type	Status	Stamina	Morale
	Ready	100%	81%
	Resting	93%	81%
	Resting	70%	81%
	Resting	86%	81%
	Ready	71%	81%
	Ready	100%	81%
	Resting	88%	81%
	At Work	85%	81%
	Ready	96%	81%
	Ready	100%	100%
	Ready	100%	100%
	Sick/Injured	65%	81%



DEVELOP BASE



Scoring			
Health/Welfare Mission Readiness Resource Expenditures			
Event	Standard Completion	Actual Completion	Points
Open Air Base	Day 4 00:00	not yet complete	20
C2 Established	Day 9 00:00	not yet complete	20
Establish Airbase	Day 16 00:00	not yet complete	20
First Sortie	Day 20 00:00	not yet complete	20
Sorties Flown	0		20
Point Totals in RED are projected scores			
Simulation End Time: Day 22 00:00			
Time Remaining: 19 Days 05:29			
SCORES	Health/Welfare	94	
	Mission Readiness	100	
	Resource Expenditures	100	
	OVERALL	98	

Mission Readiness is one of three evaluation areas for air base command.

Mission Readiness is measured by actual completion dates of force modules against tasked completion milestones.

Late completion of force modules loses mission points while early completion of force modules earns bonus points.

Sorties flown before scenario end also earn Mission Readiness points (more is better).



DEVELOP BASE



The ultimate mission of the expeditionary airbase is to develop and sustain the capability to generate operational airpower sorties.

The Task Summary for each force module outlines the minimum essential requirements that must be accomplished quickly before moving to the next force module milestone.

Once all force modules are completed, the base will focus on Sortie Generation.

Each task requires **TEAMWORK** between all groups!



DEVELOP BASE



Task Summary

- Current Phase: Runway Prep
- Next Phase: Open Air Base

Tasks

Unloading Area Paint (Unloading Area Upgrade)

Airfield Paint (Runway Upgrade)

Airfield Lights (Runway Upgrade)

Arresting Barrier (Runway Upgrade)

Mobile Control Tower (Runway Upgrade)

Electrical Systems Specialist

Move

Build

Upgrade

Unloading Area Paint (NoSpecialty: 99% Eff)

Day 1 15:57 Thwarted an enemy attack

Status: Functional

Upgrades Built:

Select an Upgrade:

Unloading Area Paint

Upgrade

HeavyConstructionVehicle

Move

Debris

Repair Debris (Alert Area)

Repair Debris (Fueling Area)

Repair Debris (Runway Area)

Repair Debris (Runway Area)

Repair Debris (Unloading Area)

Repair Debris (Vehicle Parking Area)

Runway Upgrades



DEVELOP BASE



Build

- ROWPU (water)
- Billeting (one tent)

Upgrade

- Vehicle Parking



ROWPU Water Treatment Plant

Status: Under Construction

Maintenance Status:



CEPavementCnstr



CEWaterHVAC



CEWaterHVAC



CEElecPower



NoSpecialty



NoSpecialty



ROWPU Water Treatment Plant



Large Water Storage



Stabilization Lagoon



Landfill



Mobile Electrical Power System

The Task Summary only lists things you MUST do; some optional tasks will help preserve your force and improve your performance rating



MANAGE RESOURCES



Scoring

Health/Welfare

Mission Readiness

Resource Expenditures

Cargo Flights

	Number	Penalty
C-130	0	0
C-17	0	0
C-5	0	0

Base Power

Days Offline (after Day 3)	0	0
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Fuel Convoy

Occurrences	0	0
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Penalty occurs if fuel convoy arrives but can not unload all fuel due to storage limits

Personnel Teams

On Base:	11
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	Number	Penalty
Teams over 36:	0	0
Teams over 44:	0	0

Administrative Facilities

	Number	Bonus
GP Base Operations (no more than 3)	0	0
TEMPER Admin (no more than 10)	0	0
Air Freight Terminal	0	0

Scoring

Base Resource Score	100
Penalties	0
Bonuses	0

SCORES

Health/Welfare	94
Mission Readiness	100
Resource Expenditures	100
OVERALL	98

Expenditure of Resources is one of three evaluation areas for air base command.

Numerous resource areas are measured for scoring.

Resource Expenditures are measured by tasking of cargo flights and fuel convoys.

Maintaining constant base power and lifting in an economical number of teams helps maximize score.

Penalties are assessed for overuse of large airlifters, power outages, and too many teams.

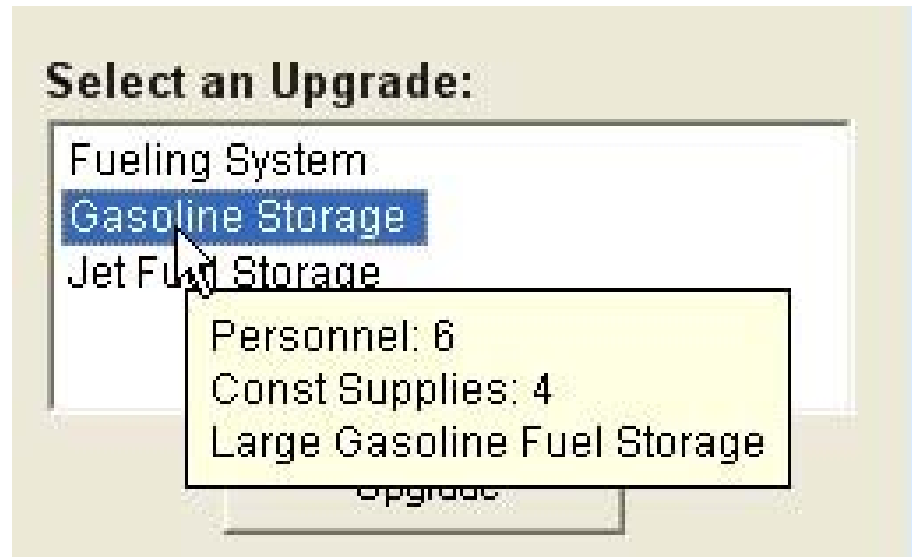


MANAGE RESOURCES



Every build or upgrade expends resources—maximize efficiency and economy

During the initial Runway Prep phase airlifters can't land yet to bring in more Personnel or Construction Supplies



Maintain sufficient resources to complete the Task Summary then quickly move to the next force module!



MANAGE RESOURCES



Supply Flight

PERSONNEL:	RESOURCES:	VEHICLES:
Specialty	Units/Loads	
CEPavementCnstr	Personnel	Heavy Construction
CEElecPower	Construction Supplies	Munition Truck
CEWaterHVAC	Food	Humvee
ACMaintenance	Munitions	Jet Fuel Truck
Munitions	Spare Parts	Gas Truck
Security	Water (Gallons)	
Supply		Weight: 82079/169000
Aviation		Personnel: 73/150

OK

Convoy Request

Request a Gas Convoy.

OK

Convoy Request

Request a Jet Fuel Convoy.

OK

When tasking airlifters, avoid using C-5s unless absolutely necessary. Don't bring in an excessive number of work teams (36 or less is ideal)



MISSION ACCOMPLISHED



